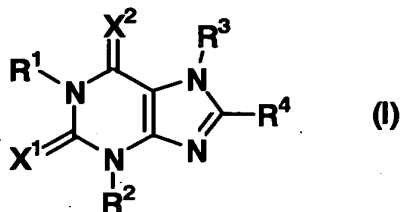


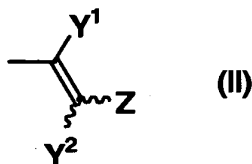
# Claims

1. An antiepileptic agent comprising a xanthine derivative represented by the formula (I):



5 [wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are the same or different and each represents a hydrogen atom, lower alkyl, lower alkenyl or lower alkynyl;

R<sup>4</sup> represents cycloalkyl, -(CH<sub>2</sub>)<sub>n</sub>-R<sup>5</sup> (wherein R<sup>5</sup> represents substituted or unsubstituted aryl or substituted  
10 or unsubstituted heterocyclic group and n represents an integer of 0 to 4) or the formula (II):



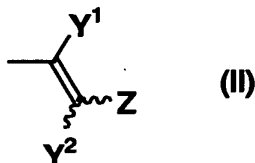
(wherein Y<sup>1</sup> and Y<sup>2</sup> are the same or different and each represents  
a hydrogen atom, halogen or lower alkyl and Z represents  
15 substituted or unsubstituted aryl or substituted or unsubstituted heterocyclic group); and

X<sup>1</sup> and X<sup>2</sup> are the same or different and each represents  
an oxygen atom or a sulfur atom] or a pharmaceutically  
acceptable salt thereof as an active ingredient.

20 2. The antiepileptic agent according to claim 1, wherein

X<sup>1</sup> and X<sup>2</sup> are oxygen atoms.

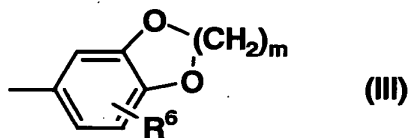
3. The antiepileptic agent according to claim 1 or 2, wherein R<sup>4</sup> is the formula (II):



5 (wherein Y<sup>1</sup>, Y<sup>2</sup> and Z have the same meanings as defined above, respectively).

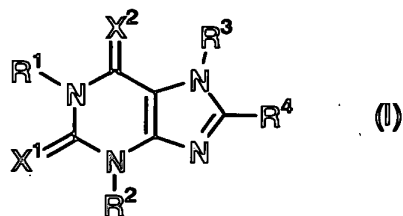
4. The antiepileptic agent according to claim 3, wherein Y<sup>1</sup> and Y<sup>2</sup> are hydrogen atoms.

5. The antiepileptic agent according to claim 3 or 4,  
10 wherein Z is substituted or unsubstituted aryl or the formula (III):



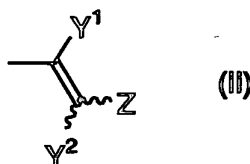
(wherein R<sup>6</sup> represents a hydrogen atom, hydroxy, lower alkyl, lower alkoxy, halogen, nitro or amino; and m represents an  
15 integer of 1 to 3).

6. A method for treating epilepsy, which comprises administering an effective amount of a xanthine derivative represented by the formula (I):



[wherein  $R^1$ ,  $R^2$  and  $R^3$  are the same or different and each represents a hydrogen atom, lower alkyl, lower alkenyl or lower alkynyl;

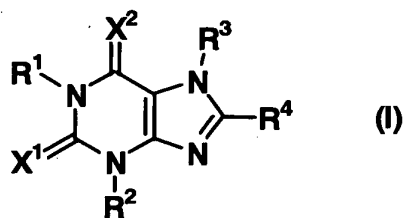
- 5         $R^4$  represents cycloalkyl,  $-(CH_2)_n-R^5$  (wherein  $R^5$  is substituted or unsubstituted aryl or substituted or unsubstituted heterocyclic group and  $n$  represents an integer of 0 to 4) or the formula (II):



- 10    (wherein  $Y^1$  and  $Y^2$  are the same or different and each represents a hydrogen atom, halogen or lower alkyl and  $Z$  represents substituted or unsubstituted aryl or substituted or unsubstituted heterocyclic group); and

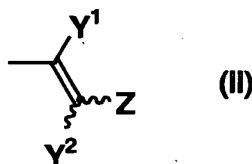
- 15         $X^1$  and  $X^2$  are the same or different and each represents an oxygen atom or a sulfur atom] or a pharmaceutically acceptable salt thereof.

7. Use of a xanthine derivative represented by the formula (I):



[wherein R<sup>1</sup>, R<sup>2</sup> and R<sup>3</sup> are the same or different and each represents a hydrogen atom, lower alkyl, lower alkenyl or lower alkynyl;

- 5            R<sup>4</sup> represents cycloalkyl, -(CH<sub>2</sub>)<sub>n</sub>-R<sup>5</sup> (wherein R<sup>5</sup> represents substituted or unsubstituted aryl or substituted or unsubstituted heterocyclic group and n represents an integer of 0 to 4) or the formula (II):



- 10            (wherein Y<sup>1</sup> and Y<sup>2</sup> are the same or different and each represents hydrogen atom, halogen or lower alkyl and Z represents substituted or unsubstituted aryl or substituted or unsubstituted heterocyclic group); and

- 15            X<sup>1</sup> and X<sup>2</sup> are the same or different and each represents an oxygen atom or a sulfur atom] or a pharmaceutically acceptable salt thereof, for the manufacture of an antiepileptic agent.